REMARKS

Claims 30-49 are pending in the application upon entry of the amendments and new claims. Claims 30-49 have been added to better describe the invention. Claims 1-29 have been cancelled. Favorable reconsideration in light of the amendments, the new claims, and the remarks which follow is respectfully requested.

The Amendments

It is noted that new claims 30-37 are roughly analogous to claims 15-23 as amended in the November 19, 2003 Reply to Final Office Action (these amendments were not entered) and support exists in the originally filed claims. New claim 30 specifies that the hemocompatible surface consists of a defined material and a defined constituent. The transition term "consisting of" serves to disclaim portions of the cited art that contain additional materials. Moreover, two disclaimers are added into claim 30. Support for the first disclaimer (thrombodulin) inherently exists in the specification, for example, at page 4, line 19; page 7, lines 4-10, and page 8, lines 1-7. Further support can be derived from page 8, lines 21-26. Support for the second disclaimer (whole cells) exists in the specification, for example, at page 2, lines 31-33; page 3, line 6; page 3, line 28; and page 4, line 29, especially when these sections are considered in total. It is noted that inter-changing the terms "comprising", "consisting of", and "consisting essentially of" are legal maneuvers and thus support is inherently in the specification.

New independent claim 39 contains portions of old claims 15, 17, and 21. New independent claim 39 further specifies that the non-thrombogenic constituent is separated and isolated from the blood cells and mesothelial cells. Moreover, a disclaimer as to entire cells is added into claim 39. Support for the "material" element exists in the specification, for example, at page 8, lines 8-10. Support for the "non-thrombogenic/separated /isolated" elements exists in the specification, for example, at page 7, lines 5-10 and lines 22-27.

Support for features of claims 40 and 48 exists in the specification, for example, at page 5, lines 12-15 and 22-24. Support for features of claims 33, 34, 41 and 42 exists in the specification, for example, at page 6, lines 21-26. Support for features of claims 38 and 46 exists in the specification, for example, at page 2, lines 12, 16, and 24. Support for features of claim 43 exists in the specification, for example, at page 7, lines 12-18. Support for features of claim 44 exists in the specification, for example, at page 7, line 4. Support for features of claim 45 exists in the specification, for example, at page 5, lines 16-21.

New independent claim 47 contains portions of old claims 15 and 21 and specifies that the hemocompatible surface consists of a defined material and a defined constituent. The transition term "consisting of" serves to disclaim portions of the cited art that contain additional materials. Moreover, a disclaimer as to entire cells is added into claim 47.

The Novelty Rejections

Claims 15, 16, 19, 21, and 23 have been rejected under 35 U.S.C. § 102(b) over Bruchman (WO 95/29712). Bruchman relates to blood contact surface of a synthetic base material, a layer of smooth muscle cells, and a subendothelial matrix. The Examiner observes in the Final Office Action dated August 19, 2003 that since the blood contact surface of Bruchman contains cells (entire cells), it also contains constituents on the outer surfaces of the cells.

As explained above, the claims have been restated to disclaim a hemocompatible surface that contains entire cells, and further the claims have been restated to specify that the claimed hemocompatible surface contains certain constituents of blood cells and mesothelial cells, but not the cells themselves or undefined portions of the cells.

To establish anticipation, each and every claim feature must be disclosed in a single cited art document. Claims 30 and 47 require a hemocompatible surface that consist of a defined material and a defined constituent. Claims 39 and 47 require a

defined constituent that is separated and isolated from blood cells and/or mesothelial cells. Claims 30, 39, and 47 all disclaim a hemocompatible surface that contains whole or entire cells. Bruchman fails to disclose hemocompatible surface that does NOT contain whole or entire cells. Since Bruchman does not disclose all of the claimed features (including showing the absence of required omissions), Bruchman cannot anticipate the pending claims.

Claims 15 and 17 have been rejected under 35 U.S.C. § 102(b) over Suzuki (EP 0239644). Suzuki relates to isolating a physiological active substance (the peptide thrombomodulin) from human lung having anti-coagulating effects (anti-thrombogenic). The physiological active substance may be fixed to materials for an artificial blood vessel to prevent the formation of thrombosis.

Claims 30 and 47 require a hemocompatible surface that consist of a defined material and a defined constituent. Although already implied by the transition term "consisting of", claim 30 requires that no thrombodulin be present. Claims 39 and 47 require a defined constituent that is separated and isolated from blood cells and/or mesothelial cells, and a constituent that is non-thrombogenic. Suzuki fails to disclose a hemocompatible surface that consists of the required claimed components, such as the non-thrombogenic constituent of the outer layers of blood cells and/or mesothelial cells. It is noted that there is significant difference between anti-thrombogenic and non-thrombogenic. An anti-thrombogenic component such as thrombomodulin has anti-coagulating effects while a non-thrombogenic component does not have positive or negative coagulating properties. Also with regard to claim 39, thrombomodulin is NOT an oligosaccharide; a polysaccharide; a lipid portion of a glycoprotein, a lipid portion of a glycolipid, or a lipid portion of a proteoglycan. Since Suzuki does not disclose all of the claimed features (including showing the absence of required omissions), Suzuki cannot anticipate the pending claims.

Claims 15, 18, 20, 22, and 29 have been rejected under 35 U.S.C. § 102(e) over Hui et al (U.S. Patent 5,919,576). Hui et al relates to a support surface having an immobilized biological membrane bound thereon via an alkanethiol monolayer. The immobilized biological membrane is made of cell membranes, for example.

Claims 30 and 47 require a hemocompatible surface that consist of a defined material and a defined constituent. Hui et al requires the use of an alkanethiol monolayer, therefore Hui et al fails to disclose the claimed hemocompatible surface that consist of a defined material and a defined constituent. Claim 39 requires a defined non-thrombogenic constituent that is separated and isolated from blood cells and/or mesothelial cells, where the non-thrombogenic constituent consisting of an oligosaccharide; a polysaccharide; lipid portions of a glycoprotein, lipid portions of a glycolipid, and/or lipid portions of a proteoglycan. The defined non-thrombogenic constituent of claim 39 is not a cell membrane, therefore, Hui et al fails to disclose the claimed defined non-thrombogenic constituent of claim 39. Since Hui et al does not disclose all of the claimed features (including showing the absence of required omissions), Hui et al cannot anticipate the pending claims.

The Obviousness Rejection

Claims 24-28 have been rejected under 35 U.S.C. § 103(a) over Keller et al (U.S. Patent 5,071,973) in view of Bruchman. The method claims have been cancelled rendering this rejection moot. Withdrawal is therefore respectfully requested.

The Double Patenting Rejection

One of claims 20/29 has been provisionally rejected over the other under 35 U.S.C. § 101 for double patenting. It is noted that the amendments and new claims described herein render this rejection moot. Withdrawal is therefore respectfully requested.

Petition for Extension of Time

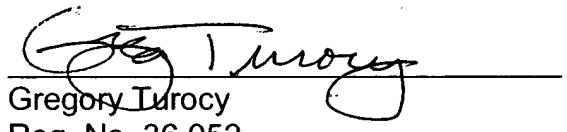
A request for a three month extension of time is hereby made (small entity status has been established). The Commissioner is authorized to charge the fees for the Three Month Petition to our Deposit Account No. 50-1063.

Should the Examiner believe that a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to our Deposit Account No. 50-1063.

Respectfully submitted,

AMIN & TUROCY, LLP



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